



# Aeronautical Study Process in the United States of America

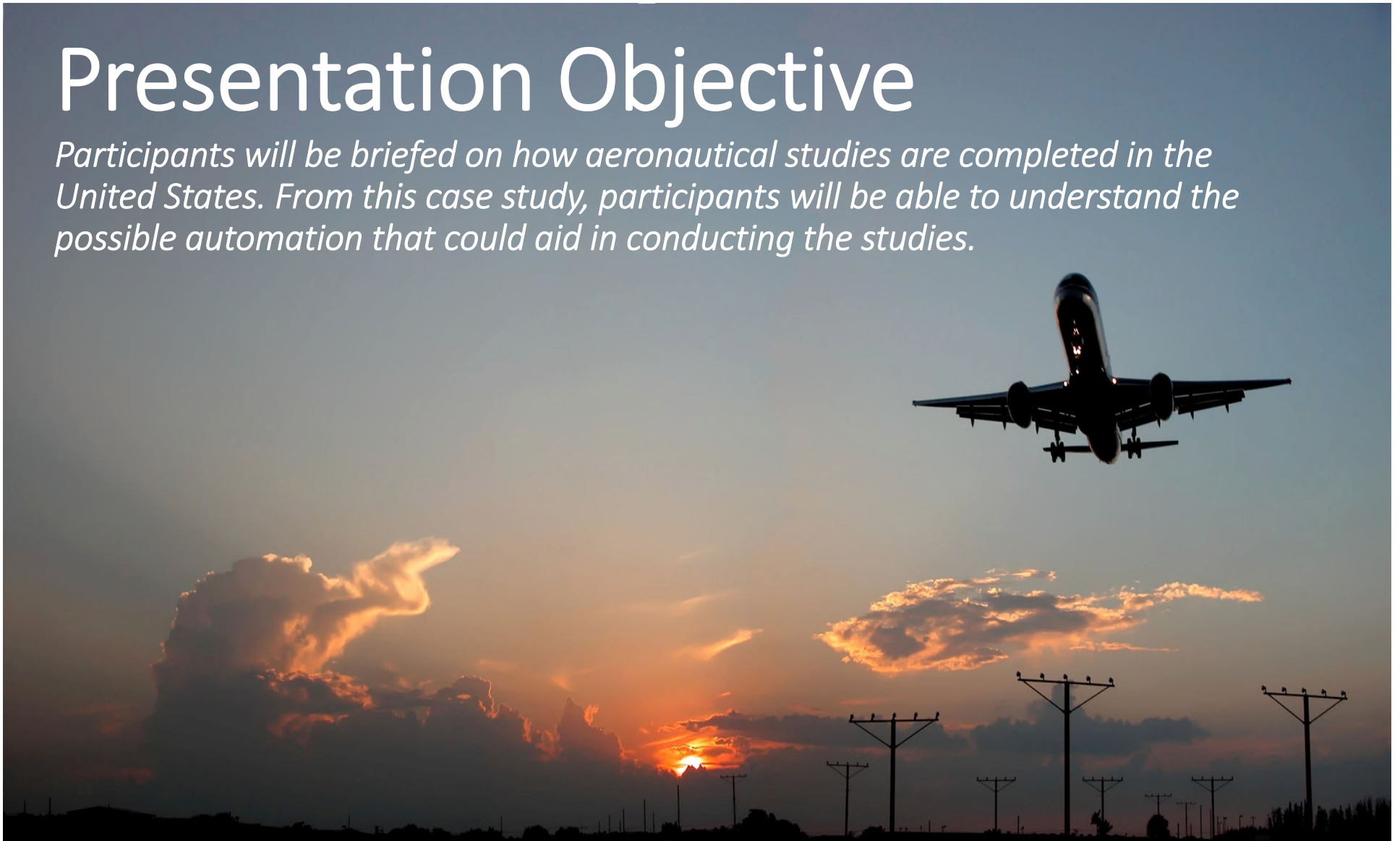
By: **Carlton Lambiasi**  
Federal Aviation Administration



**FAA**  
Office of Airports

# Presentation Objective

*Participants will be briefed on how aeronautical studies are completed in the United States. From this case study, participants will be able to understand the possible automation that could aid in conducting the studies.*



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# Notice Criteria Tool

|                                       |   |
|---------------------------------------|---|
| Latitude:                             | <input type="text" value="33"/> Deg <input type="text" value="49"/> M <input type="text" value="6.38"/> S <input type="text" value="N"/>  |
| Longitude:                            | <input type="text" value="118"/> Deg <input type="text" value="9"/> M <input type="text" value="32.33"/> S <input type="text" value="W"/>   |
| Horizontal Datum:                     | <input type="text" value="NAD83"/>  |
| Site Elevation (SE):                  | <input type="text" value="47"/> (nearest foot)  |
| Structure Height :                    | <input type="text" value="40"/> (nearest foot)  |
| Traverseway:                          | <input type="text" value="No Traverseway"/><br><small>(Additional height is added to certain structures under 77.9(c)<br/>User can increase the default height adjustment for<br/>Traverseway, Private Roadway and Waterway</small> |
| Is structure on airport:              | <input type="radio"/> No<br><input checked="" type="radio"/> Yes  |
| <input type="button" value="Submit"/> |   |

**Results**

You exceed the following Notice Criteria:

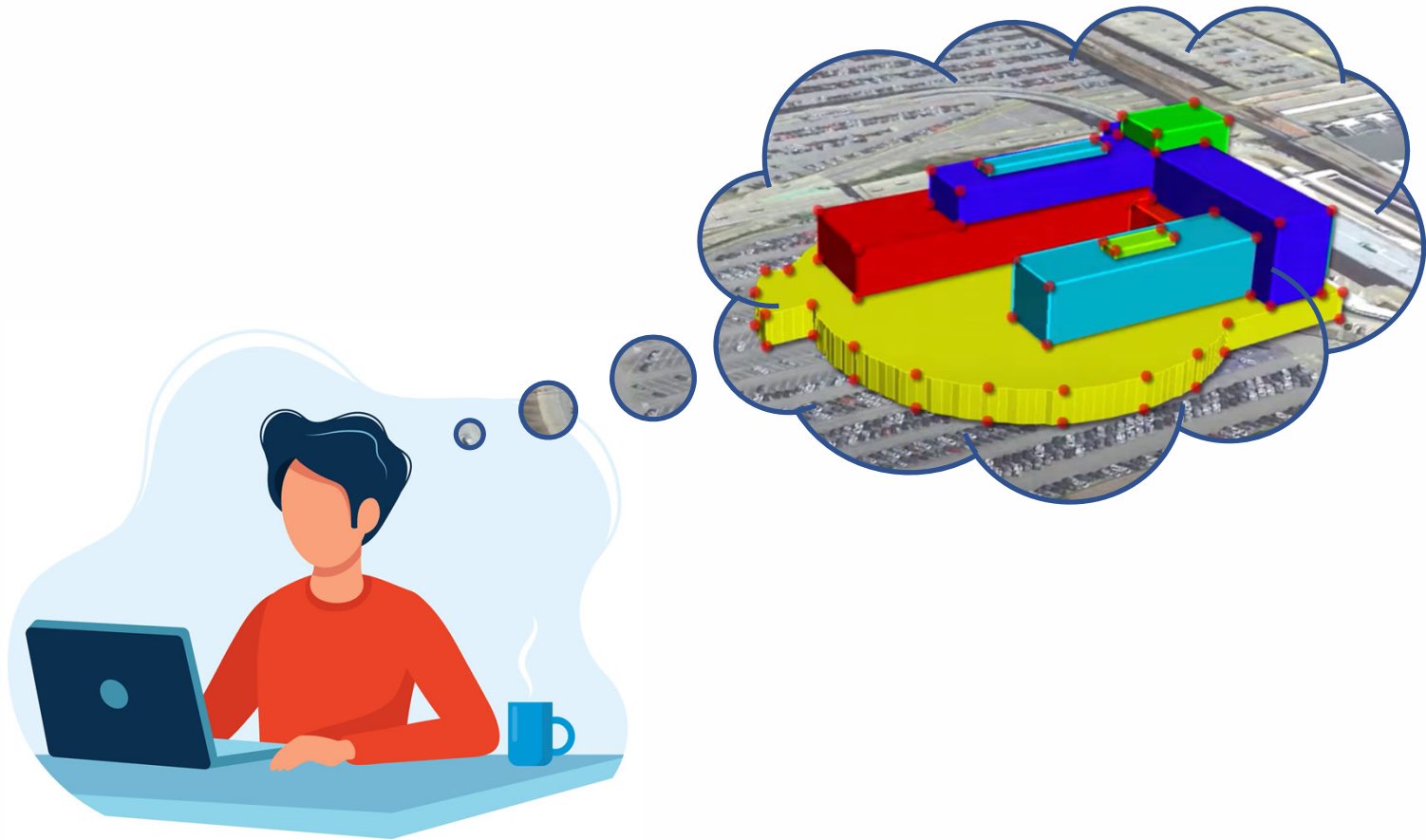
Your proposed structure is in proximity to a navigation facility and may impact the assurance of navigation signal reception. The FAA, in accordance with 77.9, requests that you file.

77.9(b) by 25 ft. The nearest airport is LGB, and the nearest runway is 12/30.

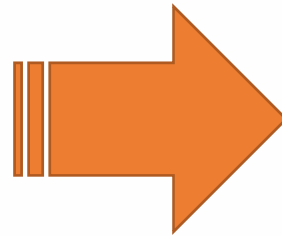
77.9(d) construction is on an airport.

The FAA requests that you file

# Electronic Notice of Proposed Construction



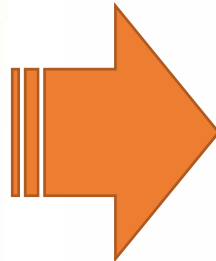
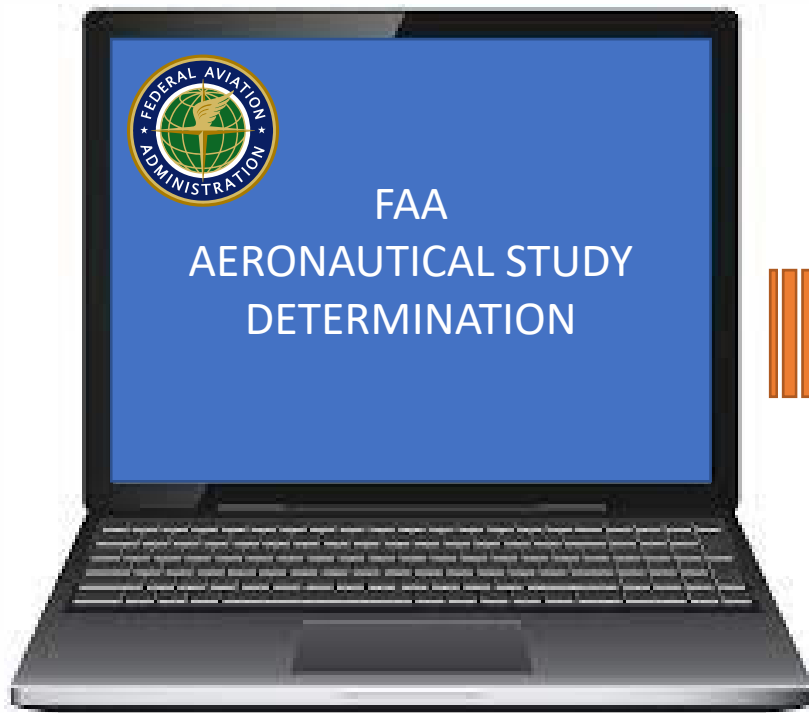
# FAA Notice of Proposed Construction



# Internal FAA Coordination



# Electronic FAA Determination





# Aeronautical Study

**EXAMPLE**





# External Notification System

- Home
- Portal
- Reporting Dashboard
- Search
- Download
- Tools
- FAQ & Resources

## Notice of Proposed Construction or Alteration

What would you like to do?

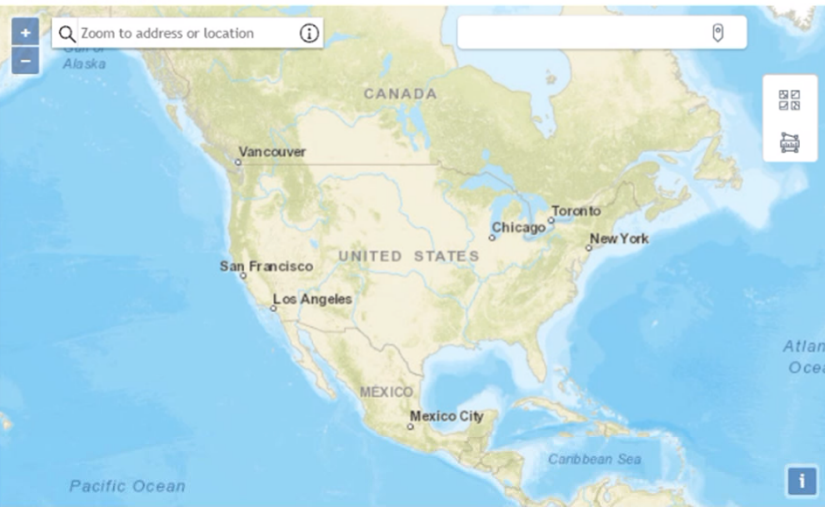
File a structure with the FAA?

Modify a structure

[< Back](#) [Next >](#)

Show Obstacles

Zoom to address or location



Map showing major cities: Vancouver, San Francisco, Los Angeles, Chicago, Toronto, New York, Mexico City. Bodies of water: Pacific Ocean, Atlantic Ocean, Caribbean Sea.



# Internal Aeronautical Study System

The screenshot shows the Internal Aeronautical Study System interface. At the top left is the Federal Aviation Administration logo. The top right corner has a link « OE/AAA ». Below the header is a navigation bar with tabs: Find, Cases, Tools, Data, Reports, Options, Help, Log Out. The main content area is divided into several sections:

- Case Data:** Includes fields for Study (ASN) 2021-AWP-3584-NRA, Rush checkbox, Prior Study, Project Ross-493596104-21, Status DET to-Prop, and an Update View link.
- Sponsor Representative:** A form for entering sponsor information, including address, city (Denver), state (CO), postal code (90209), and country (United States).
- Generate Letters:** Includes fields for Notice Of Construction, Duration Permanent, Months, Days, Begin date (02/22/2022), and End date (12/30/2022).
- Documents:** Includes fields for State (CA), Loc ID (LGB), Airport (LONG BEACH (DAUGHERTY FLD)), and City (LONG BEACH).
- Corresp Archive:** Includes Received (09/03/2021), Entered (09/03/2021), Det-to-Prop (10/19/2021), Status, Component Type (BUILDINGS(BD)), and Development Type (BUILDINGS - Construction).
- Div Responses:** A table showing submitted responses to various divisions.
- Remarks:** A text area for case notes, with "Aircraft hangar" entered.
- Proposed:** A section for proposed dimensions and coordinates, including SE (47), AGL (40), AMSL (87), Latitude (33 49 06.38 N), and Longitude (118 09 32.33 W).

Orange arrows point to various fields across the interface, highlighting key data points. At the bottom, there is a toolbar with icons for Case Popups, Saved Map, Part 77 Summary, Case Data Quick View, Nearest Airport, Circle Search, Div Resp, Design Surfaces Report, and a record indicator (Record 9 of 1779).



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Airport  
  Facility  
  Case  
  Obstacle

Q ENTER AIRPORT ID/NAME SLOWLY

**Target Info**

Project ( #cases: 6 )

Ross-493596104-21

- 2021-AWP-3579-NRA
- 2021-AWP-3581-NRA
- 2021-AWP-3582-NRA
- 2021-AWP-3580-NRA
- 2021-AWP-3583-NRA
- 2021-AWP-3584-NRA

**Stickers** +

**Measure | Draw** +

**Boundaries** +

**Layers** -

Visible  Reveal Checked

- Vertical Structures**
  - OE Cases ■
  - NRA Cases ■
  - NR Cases ■
- + Obstacle Authoritative Source
- + Nat'l Geospatial-Intelligence Agency
- Airport/Heliport**
  - ARP
  - Cadastral
- + Runway
- + Pad
- + **Facilities**
- + **Traffic Pattern Airspace**
- + **Part 77**



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# View Runway Design Standards

The screenshot displays a GIS application interface for viewing runway design standards. The interface is divided into several sections:

- Search Bar:** Located at the top left, it contains the text "ENTER AIRPORT ID/NAME SLOWLY".
- Target Info:** Below the search bar, it shows "Project ( #cases: 6 )" and a list of case IDs: "Ross-493596104-21", "2021-AWP-3579-NRA", "2021-AWP-3581-NRA", "2021-AWP-3582-NRA", "2021-AWP-3580-NRA", "2021-AWP-3583-NRA", and "2021-AWP-3584-NRA".
- Layers Panel:** On the left side, it includes a "Visible" toggle and a "Reveal Checked" button. The layers list includes:
  - Nat'l Geospatial-Intelligence Agency
  - Airport/Heliport
    - ARP
    - Cadastral
    - Runway
    - Pad
  - Facilities
  - Traffic Pattern Airspace
  - Part 77
  - Flight Procedures
  - Airspace
  - NASWatch
  - Radar Coverages
  - Airport Design

- Main Map Area:** The central part of the screen shows an aerial view of an airport with various colored overlays representing design standards. A prominent orange arrow points to a specific feature on the map. The map also includes a scale bar at the bottom left indicating "1000 ft" and a vertical toolbar on the right side with various navigation icons.



# Internal FAA Coordination

|   | Division                                 | Requested By | Requested Date | Responded By | Responded Date | Response Type               | Response  | Duration (Days) |
|---|--|--------------|----------------|--------------|----------------|-----------------------------|---|-----------------|
| 🔒 | AT - ATCT/Facilities                     | SYSTEM OEAAA | 09/08/2021     |              | 10/08/2021     | No Objection                |   | 21              |
| 🔒 | AT-OSG                                   | SYSTEM OEAAA | 09/08/2021     |              | 10/08/2021     | No Objection                |   | 22              |
| 🔒 | Air Force                                | SYSTEM OEAAA | 09/08/2021     |              | 09/08/2021     | Auto Screen                 | No Conflict with USAF Conflux Program   | 0               |
| 🔒 | Air Traffic Obstruction Evaluation Group | SYSTEM OEAAA | 09/08/2021     |              | 09/08/2021     | No Objection                |   | 0               |
| 🔒 | Airports                                 | SYSTEM OEAAA | 09/08/2021     |              | 09/15/2021     | No Objection with Provision | Coordinate with the airport sponsor to include this new development on the Airport Layout Plan (ALP). | 5               |
| 🔒 | Airports Part 139 Inspectors             | SYSTEM OEAAA | 09/08/2021     |              | 09/08/2021     | Auto Screen                 | Autoscreened for AP(139) - Not ALP or CSPP Proposal   | 0               |
| 🔒 | Army                                     | SYSTEM OEAAA | 09/08/2021     |              | 09/17/2021     | No Objection                |   | 7               |
| 🔒 | Department of Homeland Security          | SYSTEM OEAAA | 09/08/2021     |              | 09/08/2021     | Auto Screen                 | No conflict with DHS radar or airport obstruction screening   | 0               |
| 🔒 | Flight Procedures                        | SYSTEM OEAAA | 09/08/2021     |              | 10/04/2021     | No IFR Effect               |   | 18              |
| 🔒 | Flight Standards                         | SYSTEM OEAAA | 09/08/2021     |              | 09/08/2021     | Auto Screen                 | Auto Screened for Flight Standards  | 0               |
| 🔒 | Frequency Management                     | SYSTEM OEAAA | 09/08/2021     |              | 09/08/2021     | Auto Screen                 | Autoscreened for FM- No frequencies   | 0               |
| 🔒 | Navy                                     | SYSTEM OEAAA | 09/08/2021     |              | 09/08/2021     | Auto Screen                 | No Conflict with USN Conflux Program  | 0               |
| 🔒 | Tech Ops                                 | SYSTEM OEAAA | 09/08/2021     |              | 10/18/2021     | No Objection                |   | 27              |



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# Generate Determination Letter



« OE/AAA

Find: 2021            NRA    GO    Cases    Tools    Data    Reports    Options    Help    Log Out

Case Data    Part 77    Analysis    **Generate Letters**    Documents    Div Responses

ASN: 2021-AWP-3584-NRA

Project: Ross-493596104-21  
Update View

Description: Aircraft hangar

City, State: LONG BEACH, CA  
Latitude: 33-49-06.38N NAD 83  
Longitude: 118-09-32.33W

SE: 47  
AGL: 46  
AMSL: 87

Proposed

ASN: 2021-AWP-3584-NRA

#### 7460 Letters

- NO No Objection Letter 7460 (NO7460)
- OB Objection Letter 7460 (OBJ746)

#### ALP

- NA ALP-No Objection Letter 7460 (ANJ746)
- OA ALP-Objection Letter 7460 (AOJ746)

#### 7480 Letters - No Objection

- AP1 AIRPORT\_7480-1 Alter Private Use\_No Objection (APRNOAP)
- AP2 AIRPORT\_7480-1 Alter Public Use Airport\_No Objection (APUNOAP)
- AP3 AIRPORT\_7480-1 Establish Private Use\_Conditional (EPRCOAP)
- AP4 AIRPORT\_7480-1 Establish Private Use\_No Objection (EPRNOAP)
- HP2 HELIPOINT\_7480-1 Establish Private Use\_Conditional (EPRCOHP)
- HP4 HELIPOINT\_7480-1 Establish Private Use\_No Objection (EPRNOHP)
- AP6 AIRPORT\_7480-1 Deactivation\_No Objection (DNOAP)
- AP7 AIRPORT\_7480-1 Establish Seaplane Base\_No Objection (ESBNOAP)
- AP8 AIRPORT\_7480-1 Establish Ultralight\_No Objection (EUNOAP)

#### 7480 Letters - Objection

- AP5 AIRPORT\_7480-1 Establish Private Use\_Objectionable (EPROBAP)
- HP1 HELIPOINT\_7480-1 Alter Private Use\_Objectionable (APROBHP)
- HP3 HELIPOINT\_7480-1 Establish Private Use\_Objectionable (EPROBHP)

#### NOTAM Letters

- NT1 Temporary NOTAMs Alert Letter (T-NTMREQ)
- NT2 NOTAMs Cancel Letter (NTMCAN)

#### Construction Safety & Phasing Plan

- CA Construction Safety and Phasing Plan Letter (CSPP)

#### Miscellaneous



October 19, 2021

TO:  
Ross Aviation LGB  
Attn: Greg McQueary  
3200 Cherry Creak S. Drive, Suite  
670  
Denver, CO 90209  
gmcqueary@rossaviation.com

CC:  
CITY OF LONG BEACH  
CITY HALL 333 W. OCEAN  
LONG BEACH, CA 90802  
karl.zittel@longbeach.gov

CC:  
J. R. Miller &amp;amp; Assoc.  
Attn: Howard Hong  
2700 Sanum St  
Brea, CA 92821  
howardh@jrma.com

RE: (See attached Table 1 for referenced case(s))  
\*\*FINAL DETERMINATION\*\*

Table 1 - Letter Referenced Case(s)

| ASN               | Prior ASN | Location       | Latitude (NAD83) | Longitude (NAD83) | AGL (Feet) | AMSL (Feet) |
|-------------------|-----------|----------------|------------------|-------------------|------------|-------------|
| 2021-AWP-3579-NRA |           | LONG BEACH, CA | 33-49-07.48N     | 118-09-32.33W     | 35         | 82          |
| 2021-AWP-3580-NRA |           | LONG BEACH, CA | 33-49-07.48N     | 118-09-30.67W     | 40         | 86          |
| 2021-AWP-3581-NRA |           | LONG BEACH, CA | 33-49-05.26N     | 118-09-30.67W     | 35         | 81          |
| 2021-AWP-3582-NRA |           | LONG BEACH, CA | 33-49-05.26N     | 118-09-32.33W     | 35         | 82          |
| 2021-AWP-3584-NRA |           | LONG BEACH, CA | 33-49-06.38N     | 118-09-32.33W     | 40         | 87          |

Description: Aircraft hangar


We do not object with conditions to the construction described in this proposal provided:  
You comply with the requirements set forth in FAA Advisory Circular 150/5370-2, "Operational Safety on Airports During Construction."  
The proponent is required to coordinate all associated activities with the Airport Manager/Airport Traffic Control Tower (ATCT) 5 business days prior to the beginning of the project.  
This determination is subject to review if disruption to FAA Operations should occur.  
The new development must be coordinated with the Airport Sponsor and Airport District Office and included on the next update to the Airport Layout Plan (ALP).

A separate notice to the FAA is required for any construction equipment, such as temporary cranes, whose working limits would exceed the height and lateral dimensions of your proposal.



FAA  
Office of Airports

# FAA Determination Received

 Federal Aviation Administration

October 19, 2021

TO: Ross Aviation LGB  
Attn: Greg McQueary  
3200 Cherry Creek S. Drive, Suite 670  
Denver, CO 90209  
gmcqueary@rossaviation.com

CC: CITY OF LONG BEACH  
CITY HALL 333 W. OCEAN  
LONG BEACH, CA 90802  
karl.zittel@longbeach.gov

CC: J. R. Miller & Assoc.  
Attn: Howard Hong  
2700 Sahnun St.  
Brea, CA 92821  
howardh@jrma.com

RE: (See attached Table 1 for referenced case(s))  
\*\*FINAL DETERMINATION\*\*

Table 1 - Letter Referenced Case(s)

| ASN               | Prior ASN | Location       | Latitude (NAD83) | Longitude (NAD83) | AGL (Feet) | AMSL (Feet) |
|-------------------|-----------|----------------|------------------|-------------------|------------|-------------|
| 2021-AWP-3579-NRA |           | LONG BEACH, CA | 33-49-07.49N     | 118-09-32.33W     | 35         | 82          |
| 2021-AWP-3580-NRA |           | LONG BEACH, CA | 33-49-07.49N     | 118-09-30.67W     | 35         | 81          |
| 2021-AWP-3581-NRA |           | LONG BEACH, CA | 33-49-04.38N     | 118-09-30.67W     | 40         | 86          |
| 2021-AWP-3582-NRA |           | LONG BEACH, CA | 33-49-05.26N     | 118-09-30.67W     | 35         | 81          |
| 2021-AWP-3583-NRA |           | LONG BEACH, CA | 33-49-05.26N     | 118-09-32.33W     | 35         | 82          |
| 2021-AWP-3584-NRA |           | LONG BEACH, CA | 33-49-04.38N     | 118-09-32.33W     | 40         | 87          |

Description: Aircraft hangar

We do not object with conditions to the construction described in this proposal provided:

You comply with the requirements set forth in FAA Advisory Circular 150/5370-2, "Operational Safety on Airports During Construction."

The proponent is required to coordinate all associated activities with the Airport Manager/Airport Traffic Control Tower (ATCT) 5 business days prior to the beginning of the project.

This determination is subject to review if disruption to FAA Operations should occur.

The new development must be coordinated with the Airport Sponsor and Airport District Office and included on the next update to the Airport Layout Plan (ALP).

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Page 1 of 2



# Benefits of an Automated System





# Electronic Filing

*E-file is faster, easier and more accurate than filing paper forms*



# Repository of Aeronautical Studies

The screenshot displays a web-based interface for an aeronautical study repository. On the left, a sidebar contains several sections:

- Target Info:** Includes a search bar with the placeholder "ENTER AIRPORT ID/NAME SLOWLY" and a list of projects. The selected project is "Project ( #cases: 6 )" with ID "Ross-492596104-21". Below it, a list of case IDs is shown: 2021-AWP-3579-NRA, 2021-AWP-3581-NRA, 2021-AWP-3582-NRA, 2021-AWP-3580-NRA, 2021-AWP-3583-NRA, and 2021-AWP-3584-NRA.
- Google Earth:** A button to switch to Google Earth view.
- Stickers:** A section for adding stickers to the map.
- Measure | Draw:** A section for measurement and drawing tools.
- Boundaries:** A section for boundary tools.
- Layers:** A section for managing map layers, including a "Visible" toggle and a "Reveal Checked" button.

The main map area shows a satellite view of an airport and surrounding urban areas. Numerous blue triangle markers are overlaid on the map, representing obstacles. The interface includes a search bar at the top left, a sidebar on the right with navigation icons, and a scale bar at the bottom left.

# Protecting Future Runways



## Runways & Helipads: [Add Proposed Runway](#) [Add Proposed Helipad](#)

| Source   | Name                         | Length(FT) | Width(FT) | Surface | End Id   | Latitude   | Longitude  |
|----------|------------------------------|------------|-----------|---------|----------|--|--|
| NASR     | <a href="#">Runway 09/27</a> | 5401       | 100       | ASPH    | 09<br>27 | <a href="#">33-57-13.9946N</a><br><a href="#">33-57-01.9321N</a> | <a href="#">117-27-07.0891W</a><br><a href="#">117-26-04.6412W</a> |
| Proposed | <a href="#">Runway 09/27</a> | 6401       | 100       | ASPH    | 09<br>27 | <a href="#">33-57-13.9900N</a><br><a href="#">33-56-59.6800N</a> | <a href="#">117-27-07.0800W</a><br><a href="#">117-25-53.0600W</a> |
| NASR     | <a href="#">Runway 16/34</a> | 2850       | 50        | ASPH    | 16<br>34 | <a href="#">33-57-18.5568N</a><br><a href="#">33-56-50.3748N</a> | <a href="#">117-26-55.0968W</a><br><a href="#">117-26-54.2398W</a> |
| NASR     | <a href="#">Helipad H1</a>   | 60         | 60        | ASPH    | H1       | No latitude  | No longitude   |

# Efficient Internal Coordination





# Thank you!

## Carlton Lambiasi

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Federal Aviation Administration

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